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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,528	02/07/2007	Hitoshi Tsuge	292022US2PCT	9466

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
SHERMAN, STEPHEN G	

ART UNIT	PAPER NUMBER
2629	

NOTIFICATION DATE	DELIVERY MODE
11/10/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/581,528	TSUGE, HITOSHI	
	Examiner	Art Unit	
	STEPHEN G. SHERMAN	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *69-77* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *69-77* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *7 February 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/31/2006; 3/8/2007; 8/21/2007; 10/8/2007; 2/11/2008; 1/7/2009; 3/18/2009; 5/27/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the application filed 2 June 2006. Claims 69-77 are pending.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 31 August 2006, 8 March 2007, 21 August 2007, 8 October 2007, 11 February 2008, 7 January 2009, 18 March 2009 and 27 May 2009 are being considered by the examiner.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 71 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recites "**A** self-luminescent display apparatus" then recites "the voltage outputted from said voltage generating section is changeable individually for **each** self-luminescent display apparatus such that a deviation of the sum of currents flowing through said self-luminescent elements is decreased individually for **each** display panel of said self-luminescent display apparatus" which is unclear because the Examiner cannot possible know what the Applicant is intending to claim as to what the sums of the currents are decreased individually for. The is no antecedent basis for the term "each display panel" further the claim contradicts itself by reciting "a self-luminescent display apparatus" then "each self-luminescent display apparatus. Thus the Examiner is unsure what the voltage is being changed for in the claim. As such clarification is needed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 69, 70 and 72-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuruoka et al. (US 6,414,443) in view of Kasai (US 6,989,826).

Regarding claim 69, Tsuruoka et al. disclose a self-luminescent display apparatus comprising:

self-luminescent elements arranged in a pattern of a matrix (Figure 4, 3'); and

a voltage generating section to supply a gradation voltage, which is to correspond to a display grade, to said pixel circuits (Figure 4, 34. See column 5, lines 50-54.),

wherein the gradation voltage is changed individually for each self-luminescent display apparatus (See column 5, lines 50-54), and

the gradation voltage is supplied to said pixel circuits such that the sum of currents flowing through said self-luminescent elements is a predetermined current value (Figure 3 and column 5, line 65 to column 6, line 37 and column 6, line 64 to column 7, line 2.).

Tsuruoka et al. fail to explicitly teach of pixel circuits provided in association with each of said self-luminescent elements.

Kasai discloses a self-luminescent display apparatus comprising pixel circuits provided in association with each self-luminescent element of the display (Figures 3 and 4, 210).

Therefore, since Tsuruoka et al. and Kasai each disclose of self-luminescent displays, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the pixel circuit taught by Kasai in the display taught by Tsuruoka et al. in order to achieve the predictable result of providing a self-luminescent display that can display images.

Regarding claim 70, please refer to the rejection of claim 69, and furthermore Tsuruoka et al. also discloses where the voltage outputted from said voltage generating section is changed according to temperature (Figures 2B and 4 and column 5, line 24 to column 6, line 25).

Regarding claim 72, Tsuruoka et al. and Kasai disclose the self-luminescent display apparatus according to Claim 69.

Tsuruoka et al. also disclose wherein said voltage generation section adjusts the gradation voltage such that when the gradation voltage is supplied to said pixel circuits, the sum of currents flowing through said self-luminescent elements is measured and

adjusted to be the predetermined current value (Figure 3 and column 5, line 65 to column 6, line 37 and column 6, line 64 to column 7, line 2.).

Regarding claim 73, Tsuruoka et al. and Kasai disclose the self-luminescent display apparatus according to Claim 69.

Kasai also discloses the apparatus further comprising:

an adjustor circuit to adjust the gradation voltage generated by said voltage generation section (Figure 4 and column 5, line 60 to column 6, lien 2), and

a memory unit to store a voltage value set by said adjustor circuit (Figure 4 and column 5, lines 60-62).

Regarding claim 74, Tsuruoka et al. and Kasai disclose the self-luminescent display apparatus according to Claim 69.

Kasai also discloses wherein the display grade corresponds to a grade of black display (Figure 18 and column 15, lines 1-24).

Regarding claim 75, Tsuruoka et al. and Kasai disclose the self-luminescent display apparatus according to Claim 69.

Tsuruoka et al. also disclose the apparatus further comprising:

a temperature compensation unit to generate a signal inputted to said voltage generation section according to the change of ambient temperature, wherein the gradation voltage outputted from said voltage generation section is changed by the

signal inputted from said temperature compensation unit, thereby to compensate for a temperature characteristic of the currents flowing through said self-luminescent elements (Figure 2b and 4, 35 and column 5, line 38 to column 6, line 24.).

Regarding claim 76, Tsuruoka et al. and Kasai disclose the self-luminescent display apparatus according to Claim 69.

Kasai also discloses wherein said voltage generation section comprises at least one predetermined circuit including a driving transistor and a storage capacity, disposed in said pixel circuit, and the gradation voltage is generated based on a gate voltage or drain voltage of said driving transistor (Figure 4 and column 5, line 19 to column 6, line 2.).

Regarding claim 77, Tsuruoka et al. and Kasai disclose the self-luminescent display apparatus according to Claim 76.

Kasai also discloses wherein at least two predetermined circuits including a driving transistor and a storage capacity, respectively, are provided, and one of said predetermined circuits is selected and used as said voltage generation section (Figures 3 and 4, where one of the circuits will be selected in the first row when the gate signal is high, and then the pixel circuit will be used to generate the voltage as shown in Figure 4.).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Numao (US 2003/0011314) discloses a display apparatus with a current measuring means for updating the drive signal.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN G. SHERMAN whose telephone number is (571)272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen G Sherman/
Examiner, Art Unit 2629

4 November 2009